



# Framing scale increase in Dutch agricultural policy 1950–2012

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## ABSTRACT

In this paper, we study how agricultural policy, and particularly how scale increase, has been framed by the responsible ministers over the last six decades. We analyse the different interpretations attached to scale increase and other policy issues, in a longitudinal study of the memoranda accompanying the yearly national budget for the Ministry of Agriculture. Our analysis provides a nuanced explanation for the continuous use of the contested concept of scale increase. We show that the framing of Dutch agricultural policy has undergone considerable changes regarding issues and solutions, the role of international policy and issues from other policy domains. We find that the policy and the policy frames have become more diverse, interdependencies have increased and as a result policy has become more complex and self-referential. Part of our findings can be explained as the occurrence of a paradigm shift. However this does not explain the continuous presence of the logic of scale increase as the way forward for Dutch agriculture. We state that the self-referential agricultural policy system has aimed to continuously improve itself by means of scale increase, without discussing or critically reflecting on the functioning of the system itself. In this process language played a powerful role: changing the language helped to maintain the existing system or paradigm in which scale increase is continuously positively framed as the solution for Dutch agriculture.

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## 1. Introduction

At present the agricultural sector, and especially the building of ‘megastables,’ is a topic of much and heated discussion in the Netherlands. Several reasons have been identified for the current resistance to megastables: for example, the occurrence of various animal diseases; issues about antibiotic use and increasing resistance to antibiotics; insecurity about the risks of dust and other emissions; and recently the size of megastables in the landscape [see also 1, 2–4]. Proponents highlight that large stables, with more animals and thus increased productivity, make investments in the newest technology feasible, resulting in less emissions, partly closed systems, less animal transports, and better animal welfare (more space). Another argument is food security: if we want to feed the growing world population we need to produce much more food than we do now.

As a result of all the protests and in accordance with the 2012 memorandum, the Dutch Minister of State of Agriculture (Henk

Bleker) decided to organize a ‘societal dialogue’ about ‘the scale and future of the animal husbandry sector’ [5: p. 5] in the Netherlands. This dialogue should ‘result in a clear overview of all the opinions and arguments regarding scale increase in animal husbandry’ [6] and give an ‘insight into the question of whether there exists a societal legitimation for animal husbandry or what is necessary to obtain this’ [5: p. 11]. The dialogue took place early in 2011.

The results of the dialogue were presented to the Dutch Cabinet in a letter from the Minister of State on 23 November 2011 [7]. In this letter, the Minister of State largely follows the reports of Hans Alders [5] and Commissie Van Doorn [11]. Despite the fierce discussions, these two recent reports justify scale increase. In *From Mega to Better (Van mega naar beter)* [5] scale increase is literally mentioned as the means to continue farming in the most preferred scenario. In *All Meat Sustainable (Al het vlees duurzaam)* [11] is stated that size is of subordinate importance as long as the production of meat is sustainable. The Minister of State in his letter concludes that the government ‘at the present moment does not see any reason to interfere with the scale-size of farms.’ [7: p. 7].

However, this discussion is not new. As far back as the 1930s, people in the Netherlands were afraid that farms were getting too big and too industrial: ‘from being an “agriculturist,” the farmer is becoming more and more a “manufacturer of naturalia.”’ [Houwink, 1935 in: 8, p. 3, our translation]. Notwithstanding these

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early negative sounds, even from farmers themselves (e.g. in the 1980s young farmers worried about ‘mammoth companies’ [see 12]), until recently the Dutch government has unproblematically stimulated scale increase (an increase in both size and intensity) in the agricultural sector. Scale increase, also referred to in terms of for example rationalization, increasing production, expansion, or intensification, has thus been a topic of debate for many years.

To understand the current discussion and the continuous use and justification of the contested concept of scale increase as the way forward for Dutch agriculture, we need to know how the situation became what it is now. In other words, we need a historical analysis to understand the current discussion.

Several other researchers have studied the development of agricultural policy over different periods using various concepts and theories. For example Grant [13] and Greer [14] present extensive overviews of the development of agricultural policy in Europe (early 1960s–late 1990s/early 2000s). Frouws [2] distinguishes three discourses: the agri-ruralist, utilitarian, and hedonist discourse, to understand the ‘rural question’ (i.e. the development of the countryside) in Europe (1990s). Termeer [15] discusses the various reality definitions of different actors to explain the difficulties surrounding the Dutch manure policy (1970–1991). Termeer and Werkman [9] use configuration theory to explain why it is so difficult to change the closed agricultural policy networks (2007–2009). Other authors use the concept paradigm shift or change to explain large changes in (agricultural) policy over the last decades [e.g. 4,16,17]. Related, some scholars have recently sought to explain why language and categorizations of food scares have changed over the last decades, while the risks of these scares have remained the same. One answer is found in the institutional shifts in the area of food [e.g. 18–20]. Another answer can be found in the powerful role of language in the construction and sense-making of these risks [18–22]. However these various studies do not focus on the contested concept of scale increase, and cannot explain why this controversial term is maintained and justified as solution for all kinds of problems the agricultural policy seeks to solve. Although the social, economic and political context have changed considerably, and the agricultural policy accordingly, scale increase continues to appear in policy documents as a solution.

In this paper, we explicitly focus on the role of language in agricultural policy to understand continuity and change in Dutch agricultural policy, and to explain the continuous use and justification of scale increase in policy over time. We review the explanatory memoranda accompanying the yearly national budget of the Ministry of Agriculture over the period 1950–2012. We use framing theory to analyse the memoranda. Through the process of framing, actors highlight different aspects of a situation or an issue as relevant, problematic or urgent. In the same process, actors also leave out issues that they do not want to emphasize, as is the case in strategic documents like memoranda. As such a framing analysis will provide a more subtle insight in the continuity and change in the constructed meaning of Dutch agricultural policy and the use of the concept of scale increase therein.

We address the following research questions: How is agricultural policy framed in the Dutch agriculture ministers’ memoranda throughout the years 1950–2012? How is scale increase in Dutch agricultural policy framed in the memoranda over time? How can the continuous presence of the contested term scale increase in the overall changing agricultural policy be explained? What can we learn from this study with regard to long-term frame change?

In the following, we elaborate on framing theory and long-term frame change. Next we present the methods used, and the results of the analysis of the memoranda 1950–2012. We end with a concluding discussion.

## 1.1. Theoretical framework

In order to provide a subtle insight in the continuity and change of Dutch agricultural policy we use framing theory, theories about continuity and change in policy and long term frame change.

## 1.2. Framing theory

We follow authors like Stone [23], Fischer and Forester [24], and Hajer and Wagenaar [25] in their idea that public policy is largely made up of language and that language is not a neutral expression of interests and meanings [26]. Language does not just mirror reality but constructs its meaning [24]. From this point of view, problems, causes and solutions are not given but ‘created in the minds of citizens by other citizens, leaders, organizations, and government agencies, as an essential part of political manoeuvring (...)’ [23 p: 156]. As Fischer and Forester [24: p. 2] make clear: ‘Policy analysis and planning are practical processes of argumentation.’ Policymaking is reasoning by metaphor and analogy; it is trying to get others to see the situation as one thing rather than another [23].

In line with these starting points about the role of language in public policy we use theories about frames and framing [27–32] to show how agricultural policy has been framed throughout the years by the responsible ministers, and the role of scale increase in these policies. Frames can be understood as strong and generic story lines that guide both analysis and action. ‘To frame is to select some aspects of a perceived reality and make them more salient in a communicating context, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described’ [33 p: 52]. As Yanow [34 p: 11] explains: ‘That which is highlighted or included is often that which the framing group values.’

The concepts of frames and framing have regained the attention of researchers in a broad range of disciplines including psychology [35], sociology [36], and communication [37]. In contrast to a more cognitive approach that focuses on frames as knowledge structures or cognitive representations [38,39], we take an interactional approach, focusing on frames or *framings* as interactional alignments or co-constructions [28–30,40]. In the interactive approach, framing is the dynamic enacting and shaping of meaning in on-going interactions, and frames are temporary communication structures [29]. People construct frames when they interact by linking text to contexts [41] and considering possible reactions of the audience.

The framing of an issue is the result of processes of interaction and negotiations between different actors, and at the same time it is the input for these processes.

Frames allow policymakers to ‘make a graceful normative leap from is to ought’ [42 p: 88], whereby different frames point towards different action strategies. A policy process consists of a series of framings of the issues under debate, and the policy actor who is able to present the most convincing or acceptable framing steers the debate [24,43]. For example in the agenda-setting phase of the policy process, framing is a crucial process steering the direction of policy change (or stability) [44,45]. Agenda-setting is the on-going competition between issue proponents for the attention of media professionals, the public, and policy elites [46] and the framing of issues, stressing one perspective and ignoring others, is a powerful force in this process [46–48]. The specific framing of an issue that makes it to the top of the policy agenda will direct the kind of policy change that can take place.

## 1.3. Long-term frame change

In our view frames are not static entities, but can be revised or transformed under certain circumstances [31]. Reframing occurs

when actors change their frames; that is, when they develop a new way of interpreting or understanding the issues, or when they develop a 'new' language to communicate about the issue. In order to reframe one's understanding of an issue, some degree of perspective taking is required [32]. Perspective taking involves standing back, observing, and reflecting on the fact that there is more than one way to view the issues [31,32].

In this paper we are interested in long-term (i.e. several years or decades) policy frame change. Although there are studies about reframing [e.g. 32,49–51] in for example negotiation processes, not much research on long-term (policy) frame change has been conducted. One exception is Feyerherm [49] who found that frame(work)s can change over time given the repeated presence and interaction with participants who hold alternative frameworks. Another exception, although not using the framing terminology is Termeer [15], who concludes frames can be stabilized, redefined, and changed. She discerns confrontation (with another actor or frame) as important trigger for reframing.

In line with our approach to framing, the extensive literature on paradigm shifts in (agricultural) policy, provides us with helpful insights regarding long-term policy frame change [e.g. 4,16,17,52]. As Hall [52] explains, policymakers work within a policy paradigm: an interpretive 'framework of ideas and standards that specifies not only the goals of policy and the kind of instruments that can be used to attain them, but also the very nature of the problems they are meant to be addressing. Like a *Gestalt*, this framework is embedded in the very terminology through which policymakers communicate about their work (...): [52 p: 279, italics in the original] As such policy paradigms resemble policy discourse [cf. 53] or metaframes [cf. 32]. Drawing on theory of social learning [54], Hall [52] explains change in policy paradigms is likely to involve the accumulation of anomalies with the prevailing paradigm, experimentation with new forms of policy, and policy failures that cause a shift in the locus of authority over policy. This kind of change cannot be realized inside the state itself, but is effected by means of electoral competition and a broader societal debate [52]. According to Hall [52] such a paradigm shift is marked by radical changes. However Coleman et al. [16], Daugbjerg and Swinbank [17] show there is also a more gradual, incremental trajectory to paradigm change, characterized by adjustment and planned policy change informed by alternative policy paradigms. In this view change is negotiated between state actors and group representatives [16].

In the literature on agricultural policy paradigms three succeeding paradigms are distinguished which have determined agricultural policies since WWII: the state-assisted or modernization paradigm [4,16], the market-liberal paradigm [16], and the rural development or multifunctional agricultural paradigm [4,17]. The state-assisted paradigm rests on two fundamental principles: 'first, the agricultural sector contributes to national policy goals and therefore merits special attention; and, second, the price mechanism is a suboptimal means of achieving an efficient and productive agricultural sector' [23: p. 275]. As a reaction to problems related to the state-assisted paradigm as overproduction, high government costs, and international trade tensions the market liberal paradigm emerged [16]. In this paradigm, agriculture should be understood as an economic sector like all others, in which competitive markets are the source of producers' incomes, and only those producers who can earn an income from the sale of commodities in these free markets should remain active in agriculture [23: p. 275]. Lastly, the multifunctional agriculture or rural development paradigm evolved as a reaction against the negative environmental impacts of both former paradigms [17]. In this paradigm the agricultural sector is seen as a provider of public goods in addition to, and in many ways more important than, its role as a producer of food [17].

Thus confrontation with (actors who hold) alternative frameworks or paradigms in a situation where the current paradigm does no longer suffice, seems to be the overarching driver for long term policy frame change. With the help of these ideas on long term policy frame change we will study the changing policy framings in Dutch agricultural policy. In order to explain the continuous use of the contested concept of scale increase we will use a more fine grained frame analysis, which will enable us to show in detail how the policy and the concept of scale increase is framed over time and learns us more about long-term frame change and stability.

## 2. Materials and methods

To analyse the policy frames, we conducted a longitudinal analysis of the explanatory memoranda accompanying the yearly national budget of the Ministry of Agriculture, over the period 1950–2012. The memoranda are the results of an extensive negotiation process between the different parts of the ministry. These documents give an annual overview of the policy developments at the ministry at that time, are comparable and are all digitally accessible. For the Dutch agricultural history, taking the aftermath of WW II and the recent developments into account the period 1950–2012 is a meaningful period. We take 1950 as a starting point, since at that time government and policy were functioning normally again after WW II. We used five-yearly intervals in order to be able to discover frame changes over time. We complemented this analysis with a secondary analysis of earlier studies relating to the topic and historical overviews [e.g. 8,15,55–57], and the analysis of the two abovementioned recent advisory reports: *All Meat Sustainable* [11] and *From Mega to Better* [5].

We started our analysis by reading each whole memorandum, but, because the studied memoranda were very different in their appearance regarding their length, layout and comprehensiveness, we limited our main analysis to the introductory chapters in order to make the memoranda somehow comparable. In these introductions the main topics and goals of the memoranda are summarized. A first step was undertaking a content analysis. In this step the first author repeatedly read and compared the texts, looking for statements about general policy developments, the scale-size of farms, the related problems, and how the solutions and aims were phrased. This resulted in a selection of the relevant segments of text in the general introductory chapters of the memoranda. When the introduction did not make clear what the policy entailed, we further analysed and coded other parts of the memoranda that gave more explanation about relevant topics than was provided in the introduction.

The selected segments of text were coded, using software for qualitative data analysis (Atlas-ti). We coded the introductory paragraphs for policy context (i.e. the underlying arguments) (125 quotations), role of government (11 quotations), scale increase (i.e. statements about the scale-size and development of farms including in terms other than scale increase) (33 quotations), international policy developments (57 quotations), and other policy domains, such as planning, environment, nature, recreation (49 quotations), see Table 1.

The selected segments got as many codes as presented by the phrasing of the issue in that segment. Thus for example the phrase: "If labour and capital in Dutch agriculture want to get a reasonable reward, then in the first place a large quantity of quality produce is required." was coded with the codes policy context and scale increase. The selected and coded segments were subsequently categorized, analysed, and interpreted, resulting in the agricultural policy frames as presented in the result section below.

**Table 1**  
Interpretative codes per memorandum.

	Policy context	International	Other policy domains	Role of government	Scale increase	Quotation totals
1950	3	2	0	1	6	12
1955	3	5	0	0	0	8
1960	5	1	1	0	2	9
1965	6	2	0	1	6	15
1970	7	5	0	0	3	15
1975	1	5	4	0	5	15
1980	5	5	4	0	6	20
1985	11	4	8	0	0	23
1990	14	6	8	0	3	31
1995	11	5	7	0	0	23
2000	17	5	7	5	1	35
2005	11	4	6	3	0	24
2010	23	6	3	1	1	34
2012 <sup>a</sup>	8	2	1	0	0	11
Totals	125	577	49	11	33	275

<sup>a</sup> Since the 2012 memorandum accompanies the budget of the Ministry of Economic Affairs, Agriculture and Innovation, we analysed the parts dealing with agricultural policy.

In a second analysis, we used the words in the frames that we found in the first analysis as search terms.<sup>1</sup> In this analysis, we coded the general introductions using the literal terms and synonyms for *growth* and *expansion* related to production (12), *increasing production/productivity* (10), *structure* relating to farm development (change of structure, structure policy, structural adjustments, farm-size structure) (20), *income position/reasonable living* of farmers (14), *management* relating to farm development (12), *quality* of the agricultural produce (52), *influence of consumers/citizens/society* (69), *sustainability* (57), *vitality/liveability* (23), *innovation/innovative* (24) (see also Table 3).

### 3. Results

In this section we present our results. We illustrate the policy frames with quotes from the memoranda and refer to the used codes between brackets.

#### 3.1. 1950: increasing production, stimulating exports

In 1950, Dutch agriculture is still recovering from the Second World War [56]. Agricultural policy falls under the responsibility of the Ministry of Agriculture, Fisheries and Food Supply. The minister frames the policy for the agricultural sector in general in terms of growth, increasing production and stimulating exports (policy context, scale increase):

‘If labour and capital in Dutch agriculture want to get a reasonable reward, then in the first place a large quantity of quality produce is required.’

‘Export opportunities are also determined by the cost price of the product, and this latter is for its part once again strongly influenced by the size of the stock. It is thus plain that as large as possible an increase as is in conformity with feed production and feed importation should be striven for.’

The arguments behind these aims are framed in terms of population growth, a reasonable reward for labour and capital and the

importance of the agricultural sector for the Dutch economy (policy context).

On the international level, the first agreements for a common agricultural policy in the Benelux economic union are also framed in terms of guaranteeing social security for the farmers and farm-workers and increasing the productivity of the agricultural sector as much as possible (international).

Thus in the 1950 memorandum we see that the minister aims at stimulating growth in production and exports. The term scale increase is not used yet, but the foundations are already in the memorandum.

#### 3.2. 1955: continuing the preceding years

By 1955, the tone of the introductory memorandum has changed quite a bit. In contrast to 1950, as a result of landmark events in 1953 and 1954, such as international tensions due to the Korean war, a clear drop in prices on foreign markets and increasing surpluses, the domestic market is mentioned as the most important trading area for Dutch agriculture (policy context).

In order to guarantee a continued fair wage for the Dutch farmers the aim of the Dutch government is to promote exports, support attempts towards quality improvement and decrease costs, and to pursue a trade policy that offers the best prospects for Dutch agricultural products. Regarding foreign politics, the aim is to clear the trade barriers and to coordinate agricultural and food supply politics in the broadest sense (international). In 1955, surpluses are mentioned for the first time. Nevertheless, the minister is planning to continue the policy of the preceding years and refers explicitly to 1954 (policy context):

‘the creation of such economic conditions that the agricultural sector is enabled to deliver the largest contribution to national prosperity’ (memorandum accompanying the 1954 national budget)

So, in 1955 also, the minister wants to stimulate the agricultural sector to increase production as far as his limited possibilities allow.

#### 3.3. 1960: advancing high productivity and a reasonable standard of living

By 1960, the name of the ministry has changed to: Ministry of Agriculture and Fisheries. Also in the 1960 memorandum several difficulties and developments are mentioned that complicate the situation for the agricultural sector: the unfavourable financial position of the treasury, the development of agriculture and quality

<sup>1</sup> growth and expansion: groei|uitbreiding, structure: structuur\*|struktuur\* in relatie tot bedrijfsontwikkeling, income position/reasonable living: inkomen\*|bestaan\*|levens\*, management: bedrijfsvoering|management|ondernemerschap, quality: kwaliteit\*, sustainability: duurzaam\*|duurza\*, vitality/liveability: vitaliteit\*|vita\*|leefbaar\*, innovation/innovative: innovat\*|innover\*, consumers citizens society: burger\*|consument\*|maatschapp\*|society.



agricultural products in the surrounding countries that amongst other things leads to a decrease in the agricultural population (policy context, international). A new problem in this memorandum is the relatively deprived position of the agricultural areas in comparison to the cities (other policy domain):

'The further development of the countryside needs then again to be strenuously pursued to prevent a relative deprivation compared to the cities. While the urban conglomerates develop at an ever faster pace, many parts of the countryside, through a certain attenuation, lag ever further behind.'

This is the first time that another policy domain influences agricultural policy. In general, the policy for 1960 aims at 'the advancement of an as high as possible productivity' and 'the advancement of a reasonable standard of living in the agricultural sector.' From 1958, the agriculture ministers had been aiming at farm size increase and the related elimination of smaller farms [57]. In the 1960 memorandum, in order to end/prevent the deprived position of the agricultural areas, 'measures as part of scale increase' are explicitly mentioned, amongst others (scale increase). Despite the difficult situation, the Dutch government is of the opinion that it is the responsibility of the farmers

'to continuously improve and rationalize their enterprise, since without an increase in economic productivity, farmers will not be able to meet the constantly increasing competition. (...) This steady improvement of his farm is a duty, which in the main rests on the shoulders of the farmer himself.'

Hence, in 1960, scale increase is framed as one of the solutions for the further development of the countryside as compared to the cities, and this is the responsibility of farmers themselves.

#### 3.4. 1965: changing the structures

The memorandum for 1965 starts with an enumeration of several factors that are leading to radical changes in the agricultural sector: for example, rapid technological development, rapid economic growth outside the agricultural sector and accompanying growing prosperity, and the resultant consumption habits (policy context). Furthermore, societal changes like improving working conditions (reduction of working hours and five-day workweeks), but also increasing self-service and the greater possibility of conserving food products at home (refrigerators) are mentioned (policy context). Lastly, developments in the European Economic Community, the implementation of a common market and Common Agricultural Policy (CAP in 1962) result in a totally different market situation for many agricultural sectors (international).

The policy for 1965 is framed in terms of 'change of structure,' 'structure policy,' 'structural adjustments of farms' and 'improvement of the farm-size structure' (scale increase). The government is of the opinion that Dutch agriculture needs a 'comprehensive structure policy' (role of government). The proposed policy measures will form an essential support to the individual efforts of farmers to restructure their farms (policy context). The minister refers back to the memorandum of 1964 to repeat that

'the often less favourable farm-size structure of a relatively large number of farms in the Netherlands involves production taking place in units that are too small. This limits the opportunities to replace human labour with cheaper mechanical labour and also to rationalize management and to qualitatively improve the created product.'

As part of the outcomes of a 1960 report of a governmental research commission [56], a Development and Reorganization Fund for Agriculture had been established in 1964. The most important measure of this fund concerned

'a financial arrangement for entrepreneurs, who given their age, the lack of a successor, or because they do not see a future for their farm in the long run, on a voluntary basis want to terminate their enterprise. (...) The resulting vacant lands can be used to enlarge the area of other, already existing farms.'

Furthermore, the minister sees land consolidation as an important measure, in addition to the fund, to improve the internal farm production situation and to generally adapt and renovate rural areas (policy context, scale increase). Thus, in the 1965 memorandum, we see the development of policy explicitly aimed at scale increase.

#### 3.5. 1970: continuation of restructuring

The memorandum for 1970 is in many respects a continuation of the years before. The policy is framed in terms of 'improving the income position of those who work in the sector' and 'a maximum contribution of the agricultural sector to the national budget' (policy context). The memorandum, for the first time, mentions a negative aspect of scale increase, namely, that scale increase in the livestock sector leads to new veterinary issues. However an advice will be formulated how to deal with these issues.

The minister refers back to the 1968 memorandum for the explanation of the foundations for his policy. According to this 1968 memorandum, farmers have to deal with several issues, such as the decrease in labour because of the development of the industry as well as the rapid mechanization of agriculture (policy context). The decrease in labour has led neither to a substantial reduction in the number of farms, nor to the growth of these farms (policy context, scale increase). According to the 1968 memorandum, these issues require a continuation of the structural adjustments

'both in the agricultural operational management and in the relations between farmers on the one hand and market and industrial processing on the other hand.' (policy context, scale increase).

In the 1970 memorandum, the minister argues that the increase in the range of products and the scale increase as a result of the dismantling of barriers in the European Economic Community (EEC) – in 1968, customs within the EEC were abolished – will require more large-scale investments. Such investments will generally be within the reach only of large enterprises or co-operatives. Experience shows that enterprises with the highest growth rates owe these to a high investment rate (scale increase). So, the proposed restructuring policy is mainly aimed at scale increase. From now on, the CAP also deals with the reform of agricultural structure in the member states (international).

#### 3.6. 1975: farm development

Compared to the 1970 memorandum, the 1975 memorandum introduces several changes. For example, attention is paid to other policy areas: agricultural policy is interrelated to more general land-use planning issues (structural improvement, nature conservation, landscape and recreation), and to environmental issues (other policy domains). In addition, the terms 'intensive agriculture' and 'ecological agriculture' are used for the first time.

The policy for the agricultural sector for 1975 is still framed in the context of problems because of economic and social aspects linked to rapid technological and societal developments and low farmer incomes (policy context). In addition, issues relating to the interaction between the different links in the production chain (e.g. very low milk prices because of a further shift in sales towards retail) and issues regarding land-use planning (e.g. land

consolidation, fitting farm buildings in and maintenance of landscape) are emphasized (policy context, other policy domains).

The policy for 1975 is, although not very explicitly, mainly framed in terms of research, studies and analysis of farm development:

'The announced study about the structure vision for the agricultural sector (...) is also of importance for farm-development policy.' (scale increase)

Several passages in the memorandum imply that this farm development hints at scale increase. For example, in relation to the results of the past years, it is mentioned that

'(...) the average farm size increased significantly; in the period 1960–1973 it even doubled. Still there are many enterprises with a relatively small farm size (...) almost half of the total are smaller than 90 sbe [standaard bedrijfs eenheid, standard company unit<sup>2</sup>], whereas with a modern, efficient farm size one man can realize a production of 100 to 110 sbe.' (scale increase)

Furthermore, scale increase is used as an argument for realizing reasonable farmer incomes:

'the problems of the future position of groups of farms in the middle that currently still yield a reasonable income, but whose existing enterprise structure offers insufficient guarantees for continuation in the long run.' (scale increase)

With regard to the reform of the agricultural structure, reference is made to the European Orientation and Guarantee Fund, which will provide a contribution for the improvement of the Dutch agricultural structure (international, scale increase). From 1975 on, the CAP also influences environmental measures (international, other policy domains).

### 3.7. 1980: concerns about employment

In the 1980 memorandum, the minister frames his policy as three tasks: (1) food and raw material production in the Netherlands and elsewhere, (2) the maintenance of a strong agricultural sector (because of food supply, employment and balance of payments), (3) striking an appropriate balance in the use of green space (policy context, other policy domains). New aspects in this memorandum are attention paid to animal welfare and to interdepartmental agreements (policy context).

The minister shows particular concern with regard to employment in the agricultural sector. He refers to a yearly overview document of the LEI (*Landbouw Economisch Instituut*, Agricultural Economical Institute) in which it is calculated that current production could be maintained at the same level if labour declined by 40% (scale increase). The minister proposes to broaden agricultural activities. Production that requires a large labour input, or that aims at producing goods that have not yet reached, or are not yet threatened by, market saturation, are favoured in this. The minister thinks of product renewal, further quality differentiation, and a change from quantity to quality (policy context).

The memorandum is not very clear about the policy to maintain a strong agricultural sector. The minister's concern as expressed above shows that he is of the opinion that the sector should organize

production differently. In the remainder of the memorandum, the minister states that there has been a continuous increase in large agricultural enterprises, a continuous 'increase in the productive capacity which goes hand in hand with a decrease in agricultural enterprises' and he talks about a 'farm-development policy' that aims at 'entrepreneurship, labour, land and capital, as well as the composition, amount and quality of the produced goods.' (scale increase). Although not very clearly, this policy seems to aim at scale increase, but also shows awareness of the drawbacks.

With respect to the CAP, the Dutch minister is of the opinion that the EC should have more influence on the agricultural policies in the member states regarding surpluses, the use of pesticides and fertilizers in food production and regarding animal welfare aspects, health, and the use of medicines (international).

### 3.8. 1985: international influences and improving management

The introduction to the 1985 memorandum is framed by several EC developments (policy context, international).

'International influences and frameworks to a large extent mark the agricultural sector in our country. (...) Curbing the surpluses and controlling the growth of expenses are central in the EC.'

The minister will dedicate himself to ensuring that the EC will resolve the difficulties in a communal way: by intervening in production in sectors where structural surpluses exist or threaten to develop, by streamlining market and price policy, and by adjusting the structure policy (policy context, international). With regard to the latter, the policy is framed in terms of

'Enterprise improvement that provides the enterprise with income opportunities on a level comparable with those in the area.'

This improvement, in contrast to earlier policies, should not be reached via expansion of production, but via improvements in management (labour and production conditions, cost aspects) (policy context). Hence, scale increase as a measure to restructure farms has disappeared from the memorandum, and the consequences of specialization and increase have to be resolved on the European level (policy context, international). The national efforts are also framed in this direction:

'By and large, it is best for the agricultural sector to maintain or establish healthy, viable enterprises. It should be possible to combine modern management and sound entrepreneurship.'

Thus, for the first time, the solution is not framed in terms of scale increase, but in terms of management. However, this policy frame does not say what modern management looks like and whether or not this entails scale increase.

Environmental issues are more overtly determining the national policy as is quality of the agricultural produce (policy context, other policy domains). Interestingly, it was not till the 1980 memorandum that the 'detrimental effects of slurry and surplus slurry' were acknowledged. Although the slurry problem had already been recognized in several reports in the 1970s, it was not till the *Interimwet* (Interim Act) of 1984 that the minister took a serious initiative to tackle this problem [3,8: p. 31–37]. Even within this act however, farms were allowed to expand by at least 10%, depending on the location [idem, 8: p. 37]. In this memorandum however, the minister dedicates himself to developing an integrated environmental policy so that the use and development of natural resources remains possible (other policy domains). Within this scope, the minister has, together with the Minister of VROM (Housing, Spatial Planning and Environment), developed a new Fertilizer Act (*Meststoffenwet*) and Soil Protection Act (*Wet op de bodembescherming*).

<sup>2</sup> Till the end of the 1980's the sbe existed as norm for determining company dimensions. It was an indicator for the net added value, and with that for the need for labour (<http://www.lei.wur.nl/NL/statistieken/BSS+en+NGE/SO+en+NSO-typering/> (accessed 6.8.12). This quote relates to animal husbandry, and thus indicates farmers are able to keep larger amounts of animals, not necessarily on larger areas.

### 3.9. 1990: quality and sustainability

For the first time since 1960, the name of the ministry changes again. Now, agricultural policy falls under the Ministry of Agriculture, Nature Conservation and Fisheries. This transformation has proven to be more than mere a change of name [3]. As a result of the growing public and political pressure, the ministry has 'gradually broadened its narrow productivist perspective' [3: p. 224]. In the 1990 memorandum, the minister pays attention to several policy plans from other domains that influence the memorandum (e.g. National Environmental Policy Plan, Nature Policy Plan) and to policy that results from developments in the EC and consequent to the latest GATT negotiations (less support and protection, and instead a more market-oriented agricultural trade system) (policy context, other policy domains, international).

What is remarkable in this memorandum is that the policy is framed in terms of 'quality' (of both agricultural products and especially the environment) and, for the first time, 'sustainability.'

The national execution of the EC structural policy aims at the creation of preconditions for structural improvements and the introduction of sustainable farm systems. It enables investments in quality improvement in addition to the more traditional investments in farm improvement (policy context, scale increase).

The memorandum does not say anything about what these improvements should look like. Just like in 1985, farms should be restructured via (sustainable) management (policy context, scale increase):

'Profitability in the pig and poultry sectors is strongly influenced by the possibilities of producing efficiently by increasing costs. Enterprise development is often necessary.'

Thus farm development (increase) is framed as a measure to produce efficiently by increasing costs.

### 3.10. 1995: vitality and liveability

The framing of the 1995 policy is in terms of the 'vitality' and 'liveability' of the rural areas (policy context, other policy domains).

'A vital and varied rural area is essential for a densely populated country such as the Netherlands. The quality of society is also determined by this.'

According to the 1995 memorandum, the agricultural sector is indispensable for varied and liveable rural areas, since about two-thirds of the rural area is worked by farmers (policy context). This expresses a different role for the agricultural sector in Dutch society: managers of the landscape and liveability in the countryside. However, it is also repeated that the sector still delivers an extremely important contribution to the Dutch economy (policy context).

The future of the Dutch agricultural sector lies, according to this minister, 'mainly in producing with more added value and high quality (...) environmentally friendly and animal-friendly production in order to maintain and strengthen the market position.' The agricultural sector should try to develop new market segments: traditional production methods, regional products, but also income from services outside the agricultural sector (policy context). The minister does not mention anything about the preferred size, scale or structure of the farms.

### 3.11. 2000: renewed acquaintance between city and countryside

In the memorandum for the year 2000, an important role is reserved for consumers, citizens and society. According to the

minister, society is currently pressing for a different way of food production (policy context):

'More attention for the environment, more respect for animal welfare and sufficient attention for the demands consumers make regarding food safety (...)'

Furthermore, in the memorandum a 'renewed acquaintance between city and countryside' is emphasized [see also 8: p. 11]. The increased involvement of the city with the countryside demands different ways of agricultural production, and in addition the agricultural sector should provide for other functions: the conservation and strengthening of nature, tourism, recreation and healthcare in the Dutch countryside (policy context, other policy domains).

'Since now city and countryside have an eye for each other again, the 'green space' is not solely the domain of the farmers anymore. It is more than ever a public domain.'

For the first time, the minister openly admits that the relation between the ministry and the agricultural sector has changed as a result of different interests (policy context, role government). With regard to intensive agriculture, the minister is of the opinion that

'the sector can only obtain a lasting 'license to produce' if the way of producing is adjusted to the changing societal demands.'

In addition to policy decentralization or regionalization [3], more and more issues are part of international/EC decision making; for example, besides price and trade agreements, obligations regarding the environment are also now part of the CAP (international). Especially regarding the environment (nitrates), the EC forces the Dutch government to take stricter measures. The minister proposes a new manure policy in which the number of livestock on a farm will no longer be determined by the production rights obtained in the past, but rather by the degree to which an enterprise has arranged for the sustainable disposal or sale of manure (policy context). Furthermore, a temporary law is proposed to set a new ceiling on the maximum number of pigs that may be held on a farm (policy context).

Thus, although not framed in terms of scale 'consolidation' or 'decrease,' this new manure policy attempts to realize this. However, the converse of this policy is that a trade in land and production rights develops and results in larger farms coupled to these rights [58].

### 3.12. 2005: combining all demands

In 2003, the name of the ministry changed to: Agriculture, Nature and Food Quality, reflecting the trends in the memoranda of 1995 and 2000. The core of the policy programme is framed as

'the realization of sustainable agriculture, vital nature, a familiar countryside, and a high quality food supply, combined into a whole coherent with the wishes of citizens in the area in relation to living, working and spare time.' (policy context, other policy domains)

The minister explains that, as part of the Reconstruction Act, financing is available to concentrate the intensive agriculture in so-called agricultural development areas (policy context). This act divides the rural areas into three zones in which more intensive or less intensive agriculture is allowed. Only in 'agricultural development areas,' it is possible to engage in intensive cattle breeding, settlement of new farms and extension of farms. In other areas, intensive farms have to move out or cannot expand. The memorandum does not say much more about the development of farms, except that the policy aims at extensive dairy farms.

The minister refers to the results of the concluding meeting of the national debate about intensive agriculture, to be held later in 2005, for the policy activities regarding intensive agriculture (policy context). With regard to the other functions of the countryside, the minister has developed an integral economic, ecologic, social-cultural vision in the Agenda Vital Countryside (*Agenda Vitaal Platteland*) (other policy domains).

### 3.13. 2010: a sustainable, innovative agrocluster, agrosector, agrocomplex

The minister in the 2010 memorandum has a rather different way than her predecessors of looking at the agricultural sector and related topics. For example, she frames agriculture as 'no longer part of the problem, but part of the solution to the economic crisis we find ourselves faced with' (policy context). And, in relation to the city, the countryside is framed as the: 'front yard of the city, the place for townspeople to go for recreation and relaxation' (policy context, other policy domains). Furthermore, the minister no longer talks about farms or enterprises, but discusses the 'agrocluster,' 'agrosector' and the 'agrocomplex' (policy context, scale increase). Although she does not further explain these terms, the use of these terms signals a shift from the individual farm as focus point for policy to sets of interconnected entities; a shift from the farm level to a more integral food system level. The general agricultural policy for 2010 is framed in terms of 'sustainable,' 'preservation' and 'innovative.' The minister wants to work on

'a sustainable and innovative agricultural sector, maintenance of biodiversity and the characteristic features of our Dutch countryside, and the preconditions for qualitatively good and healthy food.' (policy context)

In the 2010 memorandum, development is no longer framed in terms of growth and expansion, or in terms of management, but in terms of 'investments in healthy and sustainable food' (policy context). With regard to the animal husbandry sector, the minister states that this sector

'receives much attention from society and is involved in many societal discussions around issues such as animal welfare, scale increase, environment, fitting in with the landscape and the world food question.' (policy context)

Sustainability and preservation are the minister's answers to this. This means an animal husbandry sector with a production system that – while remaining competitive – respects humans, animals, the environment and surroundings, including the effects of the Dutch sector elsewhere in the world (policy context). Thus, for the first time since the 1980 memorandum, the term scale increase is back, but now as part of the problem, not the solution.

The Dutch minister is of the opinion that the CAP transition process is not completed yet. Further steps regarding market orientation and more steering on societal objectives (e.g. environment, animal welfare, biodiversity) are needed (international).

### 3.14. 2012: towards a futureproof agriculture, scale increase as means for farm continuity

In the 2012 memorandum<sup>3</sup> the policy is formulated in four 'actionlines.' Only the fourth actionline deals with agriculture: 'work towards a future proof agricultural production and energy

supply.' The policy is framed in terms of sustainable, innovative and international. Sustainable by producing high-quality food with as little as possible raw produce. Innovative by developing new products that contribute to health, sustainability, flavour and ease. And international by improving the 'international top position.' The agricultural sector is designated as one of the 'topsectors': unique international competing sectors. The agricultural sector not only 'makes a crucial contribution to our economy, but also is at the inception of the solutions for the societal problems of our age' (e.g. food security). The memorandum does not mention scale increase, but highlights the development of 'integral sustainable stable systems,' and states that the government will facilitate the discussion about megastables.

In *From Mega to Better* [5], the outcomes of the societal dialogue about the future of intensive agriculture are reported. Alders [5] observes that most of the participants in the dialogue still place the animal husbandry sector in the rural areas, but question whether the developments in the sector still fit the environment. Furthermore, he concludes that complying with the rules and law is not sufficient for societal acceptance: 'Something has to change. Continuing business as usual is no longer an option' [4: p. 5]. The majority of participants in the different parts of the dialogue prefer the scenario of a future-proof (*toekomstbestendige*) animal husbandry. This scenario aims to address citizens' desire for sustainability, and implies that the consumer is willing to pay for, or otherwise subsidize, the costs of sustainably produced food. In this scenario, scale increase literally means farm continuity.

Around the same time as the report on the societal dialogue appeared, Commissie Van Doorn presented its report *All Meat Sustainable* [11]. In this report, Commissie Van Doorn gives advice about the future of the intensive livestock sector in the Province of North Brabant. Together with this advice, a declaration of intent was presented, signed by all important stakeholders in the sector.

According to *All Meat Sustainable* [11], societal acceptance of meat is under high pressure. The Commission frames the realization of a societally acceptable animal husbandry sector as a 'turn,' or more strongly formulated, a 'breakthrough' [11: p. 1]. The commission is of the opinion that we (the Netherlands and the world) cannot do without intensive agriculture if we want to feed the world's population. From that point of view, according to the Commission, the most important ambition is: 'to connect intensive methods with sustainability' [11: p. 2]. The Commission states that the interpretation of a careful animal husbandry sector involves more than merely determining the number of animals. Furthermore, it states that by only pressing for a sharp reduction in livestock, one deprives the primary producers of all future prospects. Thus, in short, the conclusion of this report is that as long as the meat is produced sustainably the size of the company is of subordinate importance.

### 3.15. Summarizing

A summary of these results can be found in Table 2. To verify the frames that we found in the above, we used the words of these frames as literal search terms in the introductory chapters of the memoranda (see Section 2). The results of this second analysis are presented in Table 3. This table shows that agricultural policy is framed in different terms. It presents how often the words typical for the different frames were mentioned in the different memoranda. This reflects the fact that different issues, expressed in different words, were important in different memoranda. The issues framed in terms of growth, expansion, increasing production/productivity were mainly important in the first years. The issues of income position and quality were important throughout almost all the memoranda. And sustainability, innovation and vitality are only recent issues. Overall, Table 3 shows that throughout the years more issues become part of the memoranda. This

<sup>3</sup> Since October 2010 the agricultural policy falls under the responsibility of the ministry of Economic Affairs, Agriculture and Innovation. As a result the 2012 memorandum is rather different. We decided to present the 2012 analysis together with the analysis of the reports *From Mega to Better* and *All Meat Sustainable*.



**Table 2**  
Summary of the policy frames and the role of scale increase.

	Agricultural policy is framed in terms of	The role of scale increase in the policy
1950	Growth, increasing production, and stimulating exports.	The term scale increase is not used yet, but the foundations are already in the memorandum
1955	Promoting exports, supporting quality improvement, decreasing costs, pursuing a trade policy, and delivering the largest possible contribution to national prosperity.	In 1955 also, the minister wants to stimulate the agricultural sector to grow as far as his limited possibilities allow
1960	Advancement of productivity that is as high as possible and of a reasonable living in the agricultural sector.	Scale increase is framed as one of the solutions for the further development of the countryside as compared to the cities
1965	'Change of structure,' 'structure policy,' 'structural adjustments of farms,' and 'improvement of the farm-size structure' Dutch agriculture needs a 'comprehensive structure policy.'	In the 1965 memorandum, we see the development of policy explicitly aiming at scale increase
1970	'Improving the income position/living conditions of those who work in the sector' and 'a maximum contribution of the agricultural sector to the national budget.'	The proposed restructuring policy is mainly aimed at scale increase. The memorandum also mentions a negative aspect of scale increase, namely, that scale increase in the livestock sector leads to new veterinary problems
1975	Research, studies and analysis of farm development.	The concept of farm development hints at scale increase
1980	Concern with regard to employment in the agricultural sector.	Although not explicitly, the policy seems to implicitly aim at scale increase.
1985	International, mainly EC developments, improvements in management.	Scale increase as a measure to restructure farms has disappeared from the memorandum. For the first time, restructuring is framed in terms of management
1990	'Quality' and 'sustainability.'	Farm development (increase) is framed as a measure to produce efficiently despite increasing costs
1995	'Vitality' and 'liveability.'	The minister does not mention anything about the preferred size, scale or structure of farms.
2000	'Renewed acquaintance between city and countryside.'	Although not framed in terms of scale 'consolidation' or 'decrease,' this policy attempts to realize this
2005	'Combining all demands.'	The Reconstruction Act will stimulate the dynamics within intensive agriculture. The memorandum does not say much more about the development of farms, except that the policy aims at extensive dairy farms.
2010	'Sustainable,' 'preservation' and 'innovative.'	Development is no longer framed in terms of growth and expansion, or in terms of management, but in terms of 'investments in healthy and sustainable food.' For the first time since 1980, the term scale increase is back, but now as part of the problem, not the solution
2012	'Futureproof,' 'sustainable,' 'innovative,' and 'international.'	Scale increase literally means farm continuity. As long as the meat is produced sustainably the size of the company is of subordinate importance

indicates the arguments and frames become more diverse, the interdependencies between different policy domains increase, the ministry has different priorities and consequently the policy and policy frames become more complex (see also below).

#### 4. Discussion and conclusion

In this section, we answer our research questions and discuss the lessons that can be learned with regard to long term policy frame change.

##### 4.1. How is agricultural policy framed throughout the years 1950–2012?

Our analysis shows that the agricultural policy in the various memoranda is written down as an agricultural story, but over the years many other elements slip in. With regard to the contents, we see a development of policy frames in the early memoranda aiming purely and unproblematically at increasing agricultural production: growth of production, increase in exports, farm development and scale increase. After 1980, the arguments and frames become more diverse, especially when NGOs, citizens (other than farmers) and consumers get a larger voice in policy [see also 14].

We notice an extension of policy aimed purely at the agricultural sector, to agricultural policy complemented with issues from other policy areas (nature, environment, water, land-use planning, etc.), to agricultural policy embedded within economic policy. This shows that other policy domains have become more and more important in addition to agricultural policy in Dutch society. At the beginning of this development, policy is framed in terms of using natural resources in such a way that agriculture benefits from these resources (1975, 1980, 1985). In 1995, a change is made towards an agricultural sector that conserves and manages the landscape.

In 2010, the rural areas are framed as being the 'front yard' of the cities.

Furthermore, an increasing influence of different administrative and spatial scales (e.g. provinces, other countries, EU, world market) can be observed. Throughout the memoranda, attention is paid to international affairs, but the issues under the influence of international policy and agreements increase considerably throughout the years, as also issues delegated to the provinces. With regard to the spatial scale, we notice an increasing influence of the cities on land use in rural areas.

We conclude that, as a result, the policy and the policy frames become more and more diverse and consequently more complex, because of the involvement of more stakeholders, more interdependencies between these stakeholders, but also between agricultural and other policy domains, the involvement of more and more administrative scales (as a result of decentralization or regionalization and international/EC decision making), conflicting and more consumer demands (quantity and quality, safe, animal friendly, etc.) and more competition.

##### 4.2. How is scale increase in Dutch agricultural policy framed in the memoranda over time?

We have shown that scale increase has been debated in different terms over the years: increase production, expand exports, farm size increase, restructure farms, farm development, sustainable farm management, new veterinary problems, and as the cause of several environmental problems.

In the early memoranda (1950–1980), scale increase is framed as a solution for the various problems with which the agricultural sector has to deal. In 1985 and 1995, scale increase is not mentioned, and farm restructuring is framed in terms of management. In 2000 and 2005, scale increase is not literally mentioned as a

**Table 3**  
Typical terms for the found frames coded per memorandum.<sup>a</sup>

	Growth, expansion related to production	Increasing production/productivity	Structure related to development	Income position/reasonable living of farmers	Management related to farm development	Quality of the agricultural produce	Influence of consumers citizens society	Sustainability	Vitality/livability	Innovation/innovative	Totals	Quotation totals <sup>b</sup>
1950	4	3	1	0	0	2	0	0	0	0	10	23
1955	0	0	1	1	0	2	2	0	0	0	6	13
1960	0	2	2	1	1	0	0	0	0	0	6	16
1965	1	3	6	2	0	2	0	1	0	0	15	29
1970	0	0	2	2	1	0	0	0	0	0	6	20
1975	0	0	0	1	0	0	0	0	0	0	1	14
1980	1	0	0	1	0	7	5	1	0	0	15	33
1985	2	2	1	1	3	7	1	1	0	1	19	36
1990	0	0	7	0	2	10	6	4	0	1	30	53
1995	1	0	0	2	1	4	4	2	6	0	20	38
2000	3	0	0	2	1	3	23	2	3	1	38	63
2005	0	0	0	0	2	6	12	11	7	3	41	62
2010	0	0	0	1	1	9	16	34	7	18	86	112
Totals	12	10	20	14	12	52	69	57	23	24	293	512

<sup>a</sup> We decided not to include the 2012 analysis, since the memorandum was rather different and we included two other reports.

<sup>b</sup> This column presents the totals of the coded quotations to make it possible to correct the increase in frequency of the typical terms for the increase in number of quotations.

problem or part of the problem, but the policy does aim at consolidation or decrease, or scale increase is only allowed in specific areas. However, the unintended side effect of this policy was a trade in production rights, resulting in more animals per farm. In 2010, scale increase is framed as part of the problem. Furthermore the minister in the 2010 memorandum uses the terms 'agrocluster', 'agrosector' and 'agrocomplex' as opposed to 'farm'. The use of these terms signals a shift from the individual farm as focus point for policy to sets of interconnected entities; a shift from the farm level to a more national food system level. In the 2012 memorandum, instead of making a statement about megastables or scale increase, the minister only wants to facilitate discussion about this topic. And lastly, in *From Mega to Better* [5], scale increase is both part of the problem and part of the solution: critics on scale increase has been the reason to start the dialogue, but scale increase is also framed as the means towards farm continuity in the most preferred scenario.

Scale increase is legitimized with different arguments, in the different memoranda, referring to different problems: for example, scale increase as a measure to end/prevent the deprived position of the rural areas as compared to the cities in 1960; in 1965 scale increase is necessary because the relatively unfavourable size structure of Dutch farms involves production taking place in units that are too small; or in 1970 scale increase requires large-scale investments, which are generally only within the reach of large enterprises and thus require scale increase. Scale increase is legitimized as a means of farm continuity in the preferred scenario of a future-proof animal husbandry [5]. And, lastly, Commissie van Doorn [11] uses sustainability as an argument to approve scale increase.

Thus, although many different problems are presented in the memoranda as arguments for the policy, to date scale increase also remains the solution: even when scale increase is framed as the problem, it is framed as the solution as well.

#### 4.3. How can we explain the continuous presence of scale increase in agricultural policy?

In line with Coleman et al. [16] we see the Dutch agricultural policy has gradually changed. We analyse a shift from the state-assisted or modernization paradigm in the early memoranda (1950–1970) towards the multifunctional agriculture or rural development paradigm (1975–2012). The elements of the market liberal paradigm are not clearly present in the Dutch memoranda. Between 1975 and 1995 we can distinguish elements of both the modernization and the multifunctional agriculture paradigm. Thus with regard to long-term frame change, we can see a shift in the umbrella paradigm or metaframe, that explains, and at the same time is explained by, the slipping in of other elements and issues from other policy areas, the use of more diverse arguments, and the increasing influence of different administrative scales [see 9,15–17].

With this paradigm shift we can also explain the framing of scale increase throughout the policy documents over the years. In the early memoranda, under the modernization paradigm, scale increase, framed in terms of growth, increasing production, and stimulating export, was necessary in order to feed the Dutch population and to contribute to national prosperity. Between 1975 and 1995, in the transition period, scale increase plays a less important role in the memoranda: it is less clear what is meant by the used framings, or the framings regarding scale increase have disappeared from the agenda. From 1995 onwards, under the multifunctional paradigm, the minister does not mention scale increase, aims at consolidation or decrease, or frames scale increase as part of the problem.

However the paradigm shift does not explain the return of the logic of scale increase as the way forward in two recent reports.

Maybe this can be explained by the present emerging of a new paradigm? Or by the idea that the modernization and multifunctional paradigms exist alongside each other? Looking at our frame analysis we can question if the modernization paradigm has ever totally disappeared [compare 17]. When we take a closer look at the strategies used in the memoranda to deal with scale increase, we can distinguish between: unmistakably positive framing in the early memoranda; framing the negative consequences of scale increase as solvable (1970); masking the term scale increase by using terms like restructuring, farm development, management (1975–1990, 2005); ignoring scale increase (1995); framing scale increase as a problem (2000, 2010); and framing scale increase as both problem and solution (2012). Thus different framing strategies enabled the continuous presence of scale increase as underlying logic in the memoranda.

A possibly illuminating explanation with regard to the continuous presence of scale increase in the documents, is an explanation of the agricultural policy system as self-referential system [59–63]. Self-referential social systems (e.g. law, politics, science, etc.) ‘constitute their own boundaries, re-create the conditions for their internal operations, and develop according to their own operational logic rather than obeying an external logic’ [64: p. 86]. To deal with complexity, the system divides reality into what it considers important or relevant and what it does not. This means that systems both include and exclude, they construct visibilities at the same time as they mask or ignore alternative conceptions of reality [9,62,65]. It also means that systems are very difficult to change [62,66]. As Morgan explains changes do not result from external influences, but are rather ‘produced by variations within the overall system that modify the basic mode of organization’ [61: p. 244–245].

The self-referential agricultural policy system has aimed to continuously improve itself by means of scale increase, without discussing or critically reflecting on the functioning of the system itself. In this process language played a powerful role: changing the language helped to maintain the existing system or paradigm in which scale increase is continuously positively framed as the solution for Dutch agriculture. The policy framings are enriched over time by changing the language, incorporating harmful elements, rendering these harmless [see also 66–68]. In other words the changing language immunized the system against other solutions than scale increase. At the same time actors with different framings were excluded by the system [9].

As stated above, the interdependencies in the chain, between sector and government, and between policy domains, are enormous. These interdependencies have resulted in path-dependence which makes the existing system, even if there is awareness of its self-referentiality, very difficult to change [69–71]. So in addition to debating the conditions for a sustainable agricultural sector, we suggest that more thought should be given to (1) the adaptation of the current complex agricultural system; as Einstein perceptively said: ‘We can’t solve problems by using the same kind of thinking we used when we created them.’ In this regard an opening might be to recognize that a diversity in paradigms exist [compare 2] to come to a less path dependent [63], and a more resilient agricultural system. And (2) the powerful role of language in the continuation and change of policy.

Furthermore we think that in this complex and increasingly internationally determined, but locally executed, policy field it would be interesting to study the implications of the use of scales and scale arguments. From our results, it appears that different scales (administrative, spatial) have become involved in the agricultural policy system. Similarly, we observed that other policy domains have also experienced an expansion of scales. However, despite the growing influences of scales other than, for example, the national administrative scale, the solution to the problems in the agricultural sector is still sought on the national level.

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